

ABSTRACT

Disclosed is a process for preparing a polymer. The process includes at least
5 one process stream and the process stream has at least one characteristic of
interest. The process further includes passing the process stream past a
sensor probe connected to a near-IR spectrophotometer and passing light
from a light source through the probe and into the spectrometer wherein the
light source, spectrometer and sensor probe are connected by a fiber optic
10 cable. The effect of the interaction of the process stream and the light
passing through the sensor probe is measured and used to define a value for
the characteristic of interest. The value for the characteristic of interest is a
component of an algorithm and the algorithm is used, in real time, to monitor,
control, or monitor and control the process for preparing a polymer.

15